The Changing Faces of Healthcare Professionals

An Abundance or Shortage for the Future?

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The Medieval Barbers
Jeff Tjaden
Brian Mulhall
Rena Nicholas
Michael Nack
Kari Stone
Kirk Winger

The delivery of healthcare in the United States is ever-changing, providing a myriad of challenges for patients and providers. The expectations of healthcare providers and consumers (i.e. patients) have dramatically changed from those of the early 1900s or even those of the last 10 years. Advancements in medical technology, alterations in healthcare settings, variations in healthcare professional roles, and the development and growth of a new population of non-physician providers (nurse practitioners, physician assistants, therapists, aides, and technologists) have all contributed to these changes. While medical care in the U.S. continues to provide access to state-of-the-art technologies, improve the quality of life, and increase life expectancy, there remain significant concerns due to escalating medical expenditures, the increasing medical needs of an aging population, and the growing proportion of the population without adequate access to medical resources or appropriate medical insurance. A better understanding of the current composition of the healthcare professional population and the factors that led to the evolution of these new participants is valuable in understanding some of the ongoing trends in the healthcare environment. Difficulties arise, however, with attempts to report accurate numbers regarding the medical professionals as the literature shows conflicting statements and limited data for support. The past ten years has included passionate pleas to reduce the 'overabundance' of providers while others concomitantly express their sincere concern for 'the growing shortage of providers.' The truth is difficult to find.

Physicians – changing attitudes and the role of the specialist

Much of the growth in the medical field in the early 1900s has been attributed to developments in the urban hospital culture. With the evolving belief that the hospital was 'the institution' for the provision of the highest quality medical care to the public, there was an emphasis upon further promoting this type of system throughout the country. Hospitals uniquely promoted growth throughout the medical industry by embracing advancements in medical technology/science and by encouraging the development of a higher standard of professional competence by providing a centralized location and format for medical education. In this vein, the Flexner report (in 1910) documented a lack of standardized physician training standards. The attention given to this report later led to wide-spread changes in medical education, including the establishment of graduation requirements and accreditation for licensure. In part, these measures further entrenched the central role of 'the hospital' in the medical education process. Thereafter, hospitals evolved as centers for advanced technology and provided access to specialized care not previously seen in the ambulatory setting. The promotion of specialty medicine hastened the development of fellowship and specialty programs. Following World War II, there was continued interest and growth in medical specialties with even greater growth seen in the 1970s as medical schools expanded. This growth contributed to a physician workforce that was divided between generalists (family practice, internal medicine, obstetrics/gynecology, pediatrics) and specialists. This relationship between these two camps has been strained at various times due to concerns from the generalists that the specialists were limiting and/or demeaning the roles of the primary care providers. But, this debate is not new and has been frequently heard over the past 100 years. Growth in research/technology and an increase in research grants from the National Institutes of Health further contributed to the increase in the number of specialists. The gap in incomes between generalists and specialists also expanded and biased some towards the specialty fields. Reimbursement generally favored specialists, especially those that are procedural-oriented, which furthered the income disparities, attracted many to pursue specialty positions, and further strained the generalist-specialist relationship.

For a number of years, physicians were identified as the principal providers for medical care both in hospital and outpatient settings. Over the last 20-30 years, however, these roles have been challenged and supplemented by the addition of nonphysician providers. This change was stimulated by changes in the demands of healthcare and increasing medical costs. As healthcare costs rose, concerns developed over physician spending and prompted the evaluation of cost control measures and capitation. Managed care plans were developed to address these concerns and were intended to "fix" rising expenditures and decrease access to specialists (to help to control costs). Generalists saw this as an opportunity to "gain ground" against specialists as primary care providers were advantaged by serving as gatekeepers to the access of specialty care in these managed care plans. While managed care did contribute to a growth in primary care physicians, nonphysician providers (also known as physician extenders), such as nurse practitioners (NPs) and physician assistants (PAs), also experienced growth in numbers (NPs and PAs tripled during the 1990s). This gatekeeper role, however, was seen by some patients as a hindrance to care with the perception that generalists were denying access to more 'expert care' in order to save money. The public also began to be concerned about the abilities of these primary care providers (physicians and physician extenders), who were practicing a more simplified "cookbook" form of medicine. Referral to a specialist was required for optimal medical care. Additionally, with the implementation of managed care, generalists have been required to see an increasing number of patients while decreasing contact time. This has additionally reduced the available time for teaching and has decreased the sense of job satisfaction and led to increasing 'burnout.'

Despite increasing the number of generalist contacts, there has still seemed an inadequate pool of providers to serve all patients and populations. Additional physicians have come from the increasing population of foreign-trained International Medical Graduates (IMGs). These IMGs were encouraged to train in the United States following World War II and again during the 1960s by changing immigration laws. These measures were an attempt to address the growing demand for medical professionals in the U.S. The number of IMGs continued to rise throughout the 1970s, eventually making up 20% of the physician workforce. With the debate about the growing numbers of physicians in this country, measures were taken (discussed below) that have effected a decline in the number of IMGs in the 1980s. But, that trend has since reversed with continued growth throughout the 90s. While potentially an easy target for reduction, if an 'excess' of medical providers were to develop, many argue that the IMGs serve a vital role in the current healthcare delivery system by providing care in underserved areas. Some believe that a comprehensive solution to the healthcare system would require that the role of IMGs in this system be better defined as they should not be solely relied upon to serve the underserved areas.

Clearly, the numbers of providers available in the healthcare workforce will have an impact on patient access, cost of care, and quality of the care provided. The literature and public opinion is varied and contradictory regarding the current number of available physicians. This 'numbers issue' is interesting and important, as a series of changes to address problems foreseen in the medical system were enacted by academic medical centers and federal grant programs based upon these projected numbers. In 1981, the Graduate Medical Education National Advisory Committee (GMENAC) provided data suggesting an impending surplus of physicians, especially specialists. These data were based on normative models that attempted to determine how medical services would be provided, financed, and arranged in the future, with the biased view that managed care would be the general model for healthcare. Based on these predictions, the Council on Graduate Medicine (COGME) and the Bureau of Health Professions (BHPr) recommended reducing first-year medical residents by 20% and increasing the ratio of generalists to specialists by 50%, speculating that there would be an excess of 100,00 to 165,000 specialists by the year

2000. Medical schools responded by changing emphases and successfully increased the number of family practice and primary care internal medicine residency programs, thereby increasing the number of individuals graduating from family practice residencies by nearly 80% from 1992 to 1998. Other attempts to restrict the training of more specialists were seen in the Balanced Budget Act of 1997 and the Veteran's Administration's efforts to decrease overall support to specialty training programs. Individual specialties also attempted to limit numbers, for example, in the field of gastroenterology there was an increase in the length of training to reduce the number entering the workforce. Interestingly, despite these attempts to limit specialists, growth in these fields continues as does the perception of the American public that specialty care is "better" care.

While these limiting factors were implemented to reduce specialty training, there were a number of individuals that felt that the previous models were methodologically flawed and prompted concern of a growing shortage of specialists. Richard Cooper, a proponent of an impending specialist shortage, projected significant shortages in specialists and an abundance in primary care providers using models based on trends incorporating economic expansion and its effect on health care services, hours worked by providers, the role of non-physician providers, and continued growth in the U.S population.

While the assertions regarding physician excesses versus shortages that have developed from interpretations of current physician numbers, models, and trends are difficult to interpret, the true answer is probably somewhere in-between. Examples of excesses and shortages can be presently demonstrated and it is likely that discrepancies exist in certain fields of medicine, regions within the United States, and locations (rural, suburban, and urban areas) rather than being an overall shortage or abundance. Shortages in healthcare, particularly in rural areas, are seen in a number of states and it has been noted that while 20% of the population lives in rural areas, only 11% of physicians practice in these areas. Since the 1990s, the National Health Service Corps (NHSC) has contributed to a rise in physicians practicing in rural areas, but job turnover and provider retention continue to be issues in many of these areas. Other examples of current shortages are seen in emergency room call schedules, increased waiting times for patients, and difficulties accessing subspecialty providers, especially in procedural oriented fields such as cardiology and gastroenterology. In an effort to improve these disparities, salaries for these specialists have continued to rise, as have incentives and signing bonuses. Increased costs for medical care are likely to continue, at least for the foreseeable future, with growth in an aging population, development of newer technologies and pharmaceuticals, and an increased need for universal access.

Nursing – changing/expanding roles and the need for actively working nurses?

The traditional role and importance of nursing was exemplified by Florence Nightingale in the 1850s during the Crimean War, demonstrating the importance of nursing care in reducing infections and mortality. The initial education process, similar to that of physicians, was associated with hospital-based schools with an emphasis directed towards inpatient bedside care. As healthcare needs changed, this education expanded to additional universities and then provided more training in the ambulatory setting. Training still required hospital exposure, but full-time hospital training was no longer required. As health care systems expanded during the 1960s and 70s, so did the demand for nursing.

Again, it is difficult to determine if there is a shortage or excess in the numbers of nurses, and again seems likely to be dependent on many of the factors described for physicians. While it may appear that the overall numbers of nurses are adequate, a limiting factor is that only a minority of nurses are actively working. A survey in 2001 by the National Sample Survey of Registered

Nurses noted that while there has been a gradual increase in the total number of nurses (increasing by 5.6% since 1996); only 80% were employed in nursing positions. Additional support of a shortage comes from a survey by the American Hospital Association in 2001 that noted from 715 hospitals that there were over 126,000 unfilled positions for RNs. Other sources further characterize the decrease in nursing with a decline in nurses under the age of 30 by 41% from 1983 to 1998, with the current average working age being 43.3 years. This decline in younger nurses may contribute to future shortages, especially given the growth in the aging population and the likely increased medical demands of our society. Other contributors to the declines in nursing may be related to other opportunities available in the current job market. Historically, female occupations were limited with the majority of female workers seen in nursing, secretarial, and teaching positions, but now there are many alternative career fields that were previously unavailable (illustrated by increasing enrollment of women in business, law, and medical schools). Raising families is still important in our society, is still mostly the responsibility of women, and may impact the nursing work-force as over one-third of the working nurses do so part-time in order to raise their children. Job dissatisfaction may also be contributing to the decline in actively-practicing nurses, with the perception that physician self-importance and increasing work demands of nursing (with regard to hours and numbers of encounters inherent to managed care and cost containment). The declines in nursing, while potentially significant to the current healthcare system, may also have an impact on the future number of nurses as less nursing faculty may be available to provide education for the upcoming generations.

Physician Extenders – A supplement or hindrance to primary care?

With changes in legislation involving reimbursement of physician extenders, as well as the growing acceptance by commercial insurers and managed care programs regarding these providers, the healthcare system has expanded its interest and the related growth in these disciplines. The nonphysician provider disciplines include: physician assistants, nurse practitioners, nurse midwives, nurse specialists. The following discussion will be limited to NPs and PAs, with an emphasis on the development and role of these professions.

Specialization, as was seen for physicians, has also occurred and changed the opportunities available in nursing. The nursing profession has been further stratified with the development of nursing graduate degrees in specialty fields. The first certified programs were started for nurse anesthetists and midwives in the 1940s. Nurse practitioners (NPs) were developed in 1965 in an effort to provide nurses with expanded skills in diagnosis and treatment with an emphasis on primary care and public health. Throughout the 1970s, these NPs served as a primary care resource, especially in underserved areas. This role expanded with the addition of Medicare reimbursements for NPs providing care in rural areas and later expanded to include Medicaid reimbursement (which was required by all states in 1990 for NPs providing primary care). This change in reimbursement allowed for the expansion of these physician extenders from underserved areas to the general population. With the growth of managed care in the 1990s, both nurse practitioners and physician assistants became an additional resource and supplement to physicians as primary care providers. Again, this role grew in 1997 when nurse practitioner roles were recognized and reimbursed by commercial insurers. Randomized studies comparing care delivered by these providers with physicians noted similar outcomes and acceptance.

As with physician and nursing numbers, physician extenders also contribute to and directly affect the provision of care in the current healthcare system. While growth is expected to continue for both physicians and nurses, the projected growth in the nonphysician disciplines is expected to double that of physicians. PAs are expected to have continued growth and are predicted to have

numbers equal to family practice by 2005. Again, these numbers are speculative, but need to be considered in calculations, as this number of additional providers will likely have a great impact on healthcare delivery. Further defining the role of these physician extenders with regard to the services provided, treatment ability, autonomy, and range of responsibilities will be critical in these calculations, as well.

Physician extenders offer a different healthcare experience that they hold arises from their unique training. In recent years, their role has expanded by including more specialized care and by incorporating themselves into the hospital settings where they function in roles that resident physicians traditionally filled. While services provided by physician extenders are seen as very similar to generalists, they can serve to provide additional services, such as case management (which provides a broader role to facilities). Some physicians that feel threatened by these providers emphasize the differences in training, knowledge, and possible outcomes that may be substantial. Other physicians note that unique differences may provide different perspectives to primary care, with additional emphasis towards health promotion, disease prevention, and the teaching of self-care. There are concerns by some nurses, however, that differences in nursing philosophy and practice may be lost if the environment of managed care lures these providers with financial incentives, but thereafter requires increased numbers of patient visits and reduced patient contact/care. In the future, a partnership amongst these providers may prove most beneficial for patient care.

Conclusions – Where do we go from here?

It is easy to see that there have been dramatic changes in the healthcare industry over the last century. With these changes have come new perspectives and a redefinition of roles--both from the public as well as from the medical professionals. While determining the balance of providers may have been easier in the past when there were fewer types of practitioners, the depth and breadth of care has expanded with the addition of nonphysician providers. While the exact numbers in these professions remains difficult to accurately assess, there are clear examples of areas having both shortages and excesses of healthcare workers. Rather that assessing the overall numbers, key issues to clarify for the future would be identifying the numbers of ACTIVELY working providers and to determine specific areas of need with regard to regions, settings (urban, suburban, rural), and public needs (including those without access). International medical graduates and nonphysician providers play important roles in providing quality healthcare in our current system and will likely continue to do so in the future. Utilizing these individuals, with an emphasis on the unique beneficial qualities they provide in partnership with physician providers, will be important. The perspectives of the American public must be considered regarding the roles of these different providers, because they are ultimately the consumers for which this system is being created. With the increasing age of the population and the significant numbers in the uninsured population, there remains a great need for healthcare professionals.

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